

REMARKS

Claims 1-6, 10, 12-18 and 27 are pending in the present application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

The following remarks are believed to be fully responsive to the Outstanding Office Action. Upon entry of these amendments and consideration of these remarks, Applicants submits that all of the pending claims will be allowable.

ELECTION/RESTRICTIONS

The Outstanding Office Action states that Applicant's election without traverse is acknowledged. However, Applicants did not elect without traverse. Applicants respectfully traversed the election requirement in the response filed on 8/13/04, not in a reply filed on 9/15/04 as stated in the Outstanding Office Action. It does not appear that the Applicant's arguments submitted in their response traversing the election requirement were even considered by the Examiner. Accordingly, Applicant's respectfully request consideration, or at least acknowledgement, of their previous arguments submitted in opposition to the present election requirement.

SPECIFICATION

The Outstanding Office Action states that the abstract of the disclosure is objected to because it contains extraneous words such as "comprises" or "comprising."

Applicants respectfully disagree with the objection to the abstract, since the word "comprises" is used to indicate what elements make up the layered heater, and the

word “comprising” is used to indicate what elements make up the resistive layer of the layered heater. The layered heater comprises certain elements that comprise additional elements. MPEP §608.01(b) states that the abstract should enable the reader to “determine quickly from a cursory inspection of the nature and gist of the technical disclosure.” Applicants submit that there is nothing extraneous about the language used in the abstract, as this abstract is clear on its face and was furthermore read and understood by each of the inventors in the present application.

Regardless, and in the interest of expediting prosecution of the present application, Applicants have amended the abstract herein and thus respectfully request that the outstanding objection be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 10, 12, 17, 18 and 27 stand rejected under 35 U.S.C. §102(e) as being anticipated by Puerto US2003/0231415. Applicants respectfully request reconsideration of these rejections in light of the following remarks.

Puerto discloses a lithography mirror where a resistive layer 107 is provided to generate appropriate amount of electrical heat load inversely to the actinic heat load absorbed by the mirror so as to maintain a constant heat load (actinic heat load plus electrical heat load) on the lithography mirror to reduce the image distortion. However, the resistive layer 107 disclosed by Puerto is a continuous layer and **does not define any sort of pattern whatsoever**. The resistive layer 107 of Puerto covers the entire area of the mirror, (see also Fig. 2a of Puerto), and thus **does not define a pattern** as does the claimed invention.

Each of the rejected claims includes such a pattern. Independent claims 1, 10, 12, 18 each include a **resistive layer comprising a resistive circuit pattern**. Similarly, Claim 17 claims in and of itself a resistive circuit pattern, and Claim 27 also comprises a resistive circuit pattern. See also, e.g., Fig. 3 – element #40 “resistive circuit pattern” of the present application. Puerto does not disclose or teach a resistive circuit pattern and thus claims 1, 10, 12, 17, 18, and 27 cannot be anticipated.

Additionally, Puerto does not expressly or inherently disclose a resistive circuit pattern which defines a length and/or a width wherein the thickness of the resistive circuit pattern varies **along the length and/or the width** of the resistive circuit pattern. Again, the drawings and specification of Puerto disclose that the resistive layer 107 covers the entire area of the mirror without a pattern, and furthermore, without defining a length and a width. In fact, the Outstanding Office Action admits that Puerto does not disclose a “spacing” in the claim rejections under §103, an element that is present to create such a pattern within the resistive layer.

Accordingly, the Puerto reference cannot anticipate Claims 1, 10, 12, 17, 18 and 27, and Applicants respectfully request that the present rejections be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 2-5 and 13-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Puerto in view of Juliano et al. (5,973,296).

The Outstanding Office Action states that it would have been obvious to modify Puerto’s invention to include a spacing, a dielectric layer, and a protective layer as taught by Juliano.

Claims 2-5 depend from Claim 1 and distinguish over these references for at least the reasons stated above in connection with Claim 1.

Claims 13-16 each define a layered heater wherein the resistive circuit pattern defines a length, a width, a thickness, and/or a spacing, wherein the thickness, the width, and/or the spacing vary along the length and/or width of the resistive circuit pattern and wherein the spacing and the width can be constant or variable.

Neither Puerto nor Juliano discloses a resistive circuit pattern with a variable thickness along the length and/or the width of the resistive circuit pattern. Further, Juliano does not disclose that the spacing of the resistive circuit pattern can be varied along the length of the resistive circuit pattern. Moreover, Juliano does not provide a motivation to combine its teachings with Puerto to achieve the claimed invention where the lithography mirror in Puerto does not allow any heat imbalance across the mirror substrate that would likely be introduced by a resistive circuit pattern, i.e. a resistive layer with spacing. If there were indeed spacing in the resistive layer of Puerto, such a spacing would likely introduce a heat imbalance and the resulting heater would not be satisfactory for its intended purpose. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Accordingly, Applicants submit that Claims 2-5 and 13-16 cannot be obvious and respectfully request that the outstanding claim rejections be withdrawn.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Puerto in view of Miyata et al. (6,448,538).

Claim 6 defines a layered heater with a resistive circuit pattern which defines a length and a thickness, wherein the thickness varies along the length of the resistive circuit pattern and wherein the layered heater can be a thick film, thin film, thermal spray or sol-gel.

As stated above, Puerto does not disclose or teach a resistive circuit **pattern**. Furthermore, the use of such a pattern in a heater of Puerto would likely introduce a heat imbalance and the resulting heater would not be satisfactory for its intended purpose. Since Puerto does not disclose or teach a resistive circuit pattern, and the use of such a pattern in Puerto would render its heater unsatisfactory, Puerto, alone or in combination with other references, cannot render the claims of the present invention obvious.

Furthermore, Miyata does not disclose a resistive circuit pattern with a variable thickness along the length of the resistive circuit pattern and thus does not provide any motivation to combine its teachings with Puerto to achieve the claimed invention. In fact, the sol-gel of Miyata is not used for the resistive layer, but is instead used in covering an exposed edge of the double-fused structure, thus Miyata does not even teach or suggest a sol-gel heater.

Accordingly, Applicants respectfully request that the rejection of Claim 6 be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of objection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 726-7524.

Respectfully submitted,

Dated: 28 FEB 05

By: Kelly K. Burris

Kelly K. Burris
Reg. No. 46, 361

HARNESS, DICKEY & PIERCE, P.L.C.
7700 Bonhomme Rd.
Suite 400
St. Louis, MO 63105
(314) 726-7500